

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Gopal Harikumar et al.
Filed : June 27, 2003

Art Unit : Unknown
Examiner : Unknown

Title : SPECTRALLY CONSTRAINED IMPULSE SHORTENING FILTER FOR A
DISCRETE MULTI-TONE RECEIVER

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT


Applicant submits the references listed on the attached form PTO-1449.

Under 35 USC §120, this application relies on the earlier filing date of application serial number 09/054,468, filed on April 3, 1998. All of the references were submitted to and/or cited by the Office in the prior application and, therefore, are not provided in this application.

This statement is being filed with the application. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 6/27/03


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Substitute Form PTO-1449 (Modified) Information Disclosure Statement by Applicant (Use several sheets if necessary) (37 CFR §1.98(b))	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 06269-013002	Application No.
	Applicant Gopal Harikumar et al.		
	Filing Date June 27, 2003	Group Art Unit	

U.S. Patent Documents							
Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA	5,521,908	5/28/96	Younce et al.			
	AB	6,035,000	3/2000	Bingham			
	AC	5,521,908	05/1996	Younce et al.			
	AD	5,285,474	02/1994	Chow et al.			
	AE	6,097,763	08/2000	Djokovic et al.			

Foreign Patent Documents or Published Foreign Patent Applications								
Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AF	WO 93/26096	12/23/93	PCT				
	AG	0 768 778 A1	4/16/97	Europe				

Other Documents (include Author, Title, Date, and Place of Publication)		
Examiner Initial	Desig. ID	Document
	AH	Melsa et al., "Optimal Impulse Response Shortening, Proceedings of the Thirty-third Annual Allerton Conference on Communication, Control and Computing, pp. 431-439.
	AI	Chow et al., "A Cost-Effective Maximum Likelihood Receiver for Multicarrier Systems," Proceedings of the Int'l Conference on Communication, 1992, pp. 333.7.1 – 333.7.5.
	AJ	Worthen et al., "Simulation of VDSL Test Loops, Technical Report T1E1.4/97-288, ANSI, 1997.
	AK	Harikumar et al., "Shortening the channel impulse response of VDSL loops for multicarrier applications," Technical Report T1E1.4/97-289, ANSI 1997.
	AL	Harikumar et al., "Minimizing noise bleeding in DMT systems with a TEQ," Technical Report T1E1.4/98-181, ANSI 1998.
	AM	Chow et al., "A Discrete Multitone Transceiver System for HDSL Applications, IEEE Journal on Selected Areas in Communications, Vol. 9, No. 6, August 1991, pp. 895-908.
	AN	VDSL Alliance SDMT VDSL Draft Standard Proposal, Technical Report T1E1.4/98-172, ANSI 1998.
	AO	DMT Group VDSL PMD Draft Standard Proposal, Technical Report T1E1.4/96-32R2, ANSI 1997.
	AP	Very-high-speed Digital Subscriber Lines, Draft Technical Report-Revision 9, T1E1.4/97-131, ANSI 1997.
	AQ	Cimini, Jr., "Analysis and Simulation of a Digital Mobile Channel Using Orthogonal Frequency Division Multiplexing, IEEE Transactions on Communications, Vol. COM-33, No. 7, July 1985, pp. 665-675.
	AR	Peter J. W. Melsa et al., <i>Impulse Response Shortening for Discrete Multitone Transceivers</i> , December 1995, Vol. 44, No. 12, IEEE Transactions on Communications

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

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(37 CFR §1.98(b))			

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Examiner Initial	Desig. ID	Document
	AS	Naofal Al-Dhahir, <i>Joint Channel and Echo Impulse Response Shortening on Digital Subscriber Lines</i> , October 1996, Vol. 3, No. 10, IEEE Signal Processing Letters
	AT	D. D. Falconer et al., <i>Adaptive Channel Memory Truncation for Maximum Likelihood Sequence Estimation</i> , November 1973, Vol. 52, No. 9, The Bell System Technical Journal
	AU	International Preliminary Examination Report, August 13, 1999

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